

**We are aiming to market innovative and wholly-original of R&D that is carefully focused on customer needs.**



Director of Agro & Specialty Chemicals Group

**Hidetoshi Kitazawa**  
Managing Director

### STRATEGY 1

#### **Purpose of merging Specialty Chemicals Division and Agro & Fine Chemicals Division**

The Agro & Specialty Chemicals Group is the third of our business groups, established in June 2001. It integrates the specialty chemicals business of our Pharmaceuticals Group with the agrochemicals and fine chemicals intermediates product business of the Fine Chemicals Group. The purposes for establishing this group include stabilizing income for our existing business of manufacturing products such as base chemicals for pharmaceuticals, bulk materials for agrochemicals, and intermediates for both pharmaceuticals and agrochemicals. In addition, this group will create a fusion of the intellectual assets that we have developed in the areas of chemical synthesis, fermentation technology, polymer synthesis, and pharmaceutical technology. We will use this fusion to develop new products, and will also expand our business by introducing more technology and products acquired from other companies.

In the agrochemicals field, we intend not only to expand sales of the agrochemicals that we marketed in 2001, but also to construct an overseas market for the two pesticides that we purchased in the year, and to expand product sales by creating chemicals that meet the needs of the market. We are also engaged in joint research with other companies, public research institutions, and universities in the field of biological pesticides. In the future we will continue to actively work for the purchase and contracted manufacture of specialty agrochemicals from major overseas corporations.

In the specialty chemicals field, we will continue to undertake contracted manufacture of base chemicals for pharmaceuticals, develop base chemicals for generic pharmaceuticals, and develop functional intermediates. In particular, as an anti-cancer drug specialist, we will use our advanced synthesis and fermentation technologies for aggressive contracted manufacture of pharmacologically active base chemicals that will occupy a large part of the future anti-cancer drug market.

# new products, using a base

## STRATEGY 2

### Focusing on new product development

At the time this group was created, its consolidated sales were 20.0 billion yen (total sales for all businesses in FY 2001). We are increasing sales toward an FY 2007 target of 28.0 billion yen. In FY 2002, in cooperation with Arysta LifeScience Corporation, we purchased the rights to manufacture and sell the agricultural pesticide thiocyclam (generic name) from the Swiss company Syngenta. Through this and other increases in contracted products, we raised our consolidated sales to 21.6 billion yen. In FY 2002 we began active introduction of new products to the market, and have already successfully marketed eight products. Moreover, we plan to introduce nine new products each year beginning in FY 2003. In the future we plan to develop new applied agrochemicals and pesticides, undertake new contracted manufacture of generic pharmaceuticals, and continue to develop our operations.

## STRATEGY 3

### Research and development in the nano-technology and bioscience fields

The most important feature of this group is the development it undertakes utilizing advanced specialized technologies in areas from general-use chemical products to advanced chemical synthesis. It is also distinguished by its application of the synergistic effects achieved by full utilization of the intellectual assets we have accumulated in a broad range of fields including fermentation technology and chemical synthesis. Examples include our involvement in development of veterinary medicines, functional development of chitosan, and development of biological pesticides. We are also actively engaged in fields that are expected to deliver the technological revolutions of the 21st century, including nano-technology and bioscience. We are already involved in collaborations with universities, businesses, and research institutions across Japan. The scope of our current research and development includes the development of specific products that will form the technological base for the next generation.

## Topics in Agrochemicals Business

### Acquisition of sales rights for pesticide PROPETAMPHOS

In September 2001 we purchased the sales rights to the pesticide PROPETAMPHOS from the Swiss company Novartis Animal Health. PROPETAMPHOS is an effective, highly-safe pesticide, of which approximately 90 tons (converted technical base) has been sold for control of hygienic pests and veterinary use worldwide. In the future, in addition to selling PROPETAMPHOS as a Nippon Kayaku product in Japan, we will apply our original microcapsule and other technology to increase its safety and effect duration. This will allow us to market and expand sales of a product with high added-value. We are expanding overseas, and as a licensed dealer of epidemic-control and veterinary medicines, we are engaged in sales to meet the needs of each country. We are aiming for sales on the level of 1.0 billion yen in the future.

### Acquisition of sales rights for pesticide EVISECT

In January 2002 we purchased the sales rights to the pesticide EVISECT (generic name: thiocyclam). EVISECT, primarily used with vegetables, sugar cane and flowers, was first marketed in 1975 and has been produced by Nippon Kayaku since 1984. This pesticide is derived from the insect-killing components of natural substances, and has little effect on beneficial insects. There is steady demand for this product, primarily in Central America, South America, and the Middle East.

### Introduction of soil disinfectant DOUBLESTOPPER

The soil disinfectant DOUBLESTOPPER was first marketed in February 2002. A single application eliminates both soil pathogens and nematodes, and is also expected to be effective in preventing the germination of weed seeds.



DOUBLESTOPPER

## Topics in Specialty Chemicals Business

### New application for hair softening agent RDM-53

The Nippon Kayaku product RDM-53 is used as a hair softening agent in a hair conditioner that was introduced in March 2002. RDM-53 acts to make hair softer and smoother.

### [ Group Company ]

Nippon Kayaku Food Techno Co., Ltd.

This company was founded in 1995 for the purpose of manufacturing and marketing food preservatives and health food products. Our food preservative business began in 1953. Nippon Kayaku Food Techno now offers a broad product lineup, as well as general food sanitation management systems. We are contributing to a safe and rich food culture through total sanitation.